Fibre Ready

Dual-band 2.4GHz & 5GHz 600 Mbps

BiPAC 7800VDPX

Triple-WAN Dual-Band Wireless-N 600Mbps 3G/4G LTE VoIP ADSL2+/Fibre Broadband Router

The BiPAC 7800VDPX is a fibre-ready triple-WAN ADSL2+ dual-band modem router, an all-in-one advanced device including concurrent dual-band Wireless-N 600Mbps (2.4GHz and 5GHz), Voice over IP, 3G/4G LTE, Gigabit Ethernet, and NAS (Network Attached Storage) in one unit. As well as being IPv6-capable, the BiPAC 7800VDPX ADSL2+ router supports superfast fibre connections via dual-WAN connectivity through a Gigabit Ethernet WAN port. Also, embedded in the telephony functions are VoIP, automatic fail-over and least cost routing capabilities. It also has a USB port, allowing the device to act as a print server as well as a NAS (Network Attached Storage) device with DLNA (Digital Living Network Alliance) and FTP (File Transfer Protocol) access. Moreover, the USB port can host a 3G/4G LTE modem connecting to the 3G/4G LTE network for Internet access. With an array of advanced features, the Billion BiPAC 7800VDPX delivers a future-proof solution for ADSL2+ connections, superfast FTTC and ultra-speed FTTH (Fibre-To-The-Home) network deployment and services.

Maximum Performance Dual-band Router

Featured with simultaneous dual-band technology, the BiPAC 7800VDPX can runs both 2.4GHz and 5GHz frequency bands at the same time, offering ultra-fast wireless speeds of up to 600Mbps and multiple SSIDs on both bands. The BiPAC 7800VDPX, by adopting this state-of-the-art technology, allows for multiple-demand applications, such as streaming HD videos and multiplayer gaming simultaneously. With an integrated 802.11n Wireless Access Point, the router delivers up to 6 times the speed of an 802.11a/b/g network device. It supports a data rate of up to 600Mbps (2.4GHz and 5GHz) and is also compatible with 802.11a/b/g equipment. The Wireless Protected Access (WPA-PSK/WPA2-PSK) and Wireless Encryption Protocol (WEP) features enhance the level of transmission security and access control over wireless LAN. The router also supports the Wi-Fi Protected Setup (WPS) standard, allowing users to establish a secure wireless network by simply pushing a button. If your network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows you to expand your wireless network without the need for any external wires or cables.

3G/4G Mobility and Always-On Connectivity

With the BiPAC 7800VDPX you can connect a 3G/4G LTE USB modem to its built-in USB port, allowing you to watch movies, download music or access e-mail no matter where you may be. You can even share your Internet connection with others, when away on business, at a show, or wherever there is mobile signal but no fixed line access. The auto fail-over feature ensures maximum connectivity and minimum interruption by quickly and smoothly connecting to a 3G/4G LTE network in the event that your ADSL/fibre/cable line fails. The BiPAC 7800VDPX will then automatically reconnect to the ADSL/fibre/cable connection when it's restored, reducing connection costs. These features are perfect for office situations where a constant and uninterrupted connection is critical.

True Cost Savings with the "Least Cost Routing" Feature

Making a VoIP call is extremely simple. You just need to connect your existing telephones to one or both phone ports. The BiPAC 7800VDPX complies with the most popularly adopted VoIP industrial standard, SIP protocol, ensuring interoperability with other SIP devices and major VoIP gateways. The Gateway feature called "Least Cost Routing" offers the choice of the most economical rates offered by different service providers. One RJ-11 FXO port is integrated to transmit inbound and outbound calls via PSTN fixed-line, so that users may still be able to make and receive phone calls via PSTN, while enjoying VoIP services at the same time. In addition, outgoing calls will be automatically redirected to PSTN when the Internet or VoIP service is not available. The router also supports a wider range of telephony features, such as call waiting, silence suppression, line echo cancellation, three-way conference, caller ID, and answering machine function, etc.

Experience Gigabit

The BiPAC 7800VDPX has four Gigabit LAN ports and the fourth port can be configured as a WAN port if required. This EWAN offers another broadband connectivity option for connecting to a cable, VDSL, fibre or second ADSL modem. The BiPAC 7800VDPX again offers users convenience and optimal network performance with data rates reaching up to 1Gbps.

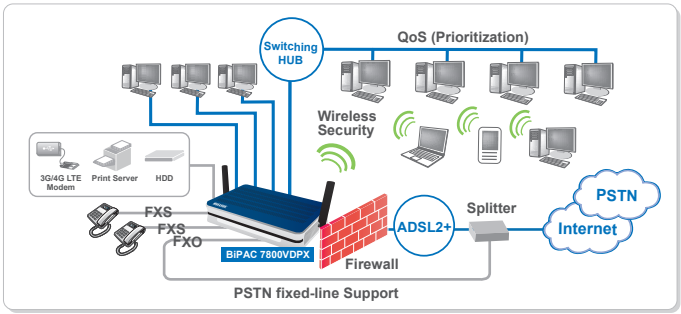
Pathway to the Future

The BiPAC 7800VDPX fully supports IPv6 (Internet Protocol Version 6), launched as the current IPv4 range is filling up, and IPv6 is gradually becoming the indispensable addressing system for savvy cloud computing users. Dual stack means the router is capable of running IPv4 and IPv6 in parallel during the transition period. With Billion IPv6 enabled devices, three major transition mechanisms such as Dual-Stack, Dual-Stack Lite, and 6RD (IPv6 rapid deployment) are supported to be adapted easily into service provider's IPv4/IPv6 network.

- Triple-WAN ports for 3G/4G LTE, ADSL2+, Gigabit Ethernet WAN (EWAN) for broadband connectivity
- Simultaneous dual-band Wireless-N 600Mbps (2.4GHz and 5GHz)
- VoIP/PSTN with failover to PSTN on power or ADSL failure
- Gigabit WAN and LAN
- Fibre (FTTC/FTTP/FTTH) ready with high WAN throughput
- IPv6 ready (IPv4/IPv6 dual stacks)
- USB port for print server, NAS, DLNA media server, and 3G/4G LTE USB modem
- SNR adjustments to achieve highest sync speeds
- Monitoring of individual LAN ports
- QoS for traffic prioritization and bandwidth management
- Broadcom chipset for better stability
- SIP gateway - least cost routing for VoIP calls
- Supports telephony features: call waiting, caller ID, three-way conference, and answering machine function, etc.
- Multiple wireless SSIDs with wireless guest access and client isolation
- Ideal for home and SOHO users

ADSL2+ | IPv6 Support | WWW VoIP | EWAN

Application Diagram



Features & Specifications

ADSL Compliance
- Compliant with ADSL standard
  - Full-rate ANSI T1.413 issue 2
  - G.dmt (ITU G.992.1)
  - G.lite (ITU G.992.2)
  - G.hs (ITU G.994.1)
  - ADSL over ISDN/U-R2
- Compliant with ADSL2 standard
  - G.dmt.bis (ITU G.992.3)
  - ADSL2 Annex M (ITU G.992.3 Annex M) (BiPAC 7800VDPXA only)
- Compliant with ADSL2+ standard
  - G.dmt.bis plus (ITU G.992.5)
  - ADSL2+ Annex M (ITU G.992.5 Annex M) (BiPAC 7800VDPXA only)

Network Protocols and Features
- IPv4 or IPv4/IPv6 dual stack
- NAT, static (v4/v6) routing and RIP-1/2
- IPv6 stateless/stateful address auto-configuration
- IPv6 router advertisement
- IPv6 over PPP
- DHCPv6
- IP tunnel IPv6 in IPv4 (6RD)
- IP tunnel IPv4 in IPv6 (DS-Lite)
- Universal Plug and Play (UPnP) compliant
- Dynamic Domain Name System (DDNS)
- Virtual server and DMZ
- SNTP, DNS relay, IGMP proxy and IGMP snooping for video service
- MLD proxy and MLD snooping for video service
- Management based-on IP protocol, port number and address
- SMTP client with SSL/TLS
- Supports port-based Virtual LAN (VLAN)

Firewall
- Built-in NAT firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc
- Remote access control for web base access
- Packet filtering (v4/v6) - port, source IP address, destination IP address, MAC address
- URL content filtering (v4/v6) - string or domain name detection in URL string
- MAC filtering
- Password protection for system management

Quality of Service Control
- Supports the DiffServ approach
- Traffic prioritization and bandwidth management based-on IPv4/IPv6 protocol, port number and Address

VoIP
- Two RJ-11 FXS ports for connecting to regular telephones
- Compliant with SIP standard (RFC3261)
- Supports G.711 A/μ law, and G.729 Audio Codec standards
- Supports telephony features: call waiting, silence suppression, voice activity detection (VAD), comfort noise generation (CNG), G.168 line echo cancellation, caller ID (Bell 202,V23), and three-way conference
- Supports answering machine function
- Dialing rules for individual use of Internet and fixed line telephony

ATM and PPP Protocols
- ATM Adaptation Layer Type 5 (AAL5)
- Multiple protocol over AAL5 (RFC 2684, formerly RFC 1483)
- Bridged or routed Ethernet encapsulation
- VC and LLC based multiplexing
- PPP over Ethernet (PPPoE)
- PPP over ATM (RFC 2364)
- Classical IP over ATM (RFC 1577)
- MAC Encapsulated Routing (RFC 1483 MER)
- OAM F4/F5

IPTV Application*2
- IGMP snooping and IGMP proxy
- MLD snooping and MLD proxy
- Virtual LAN (VLAN)
- Quality of Service (QoS)
- VLAN MUX supported

Wireless LAN
- Compliant with IEEE 802.11a/b/g/n standards
- 2.4GHz and 5GHz frequency range
- Up to 600Mbps wireless operation rate
- WPS (Wi-Fi Protected Setup) for easy setup
- Supports WPS v2
- 64/128 bits WEP supported for encryption
- Wireless security with WPA-PSK/WPA2-PSK
- Multiple wireless SSIDs with wireless guest access and client isolation
- WDS repeater function
- 802.1x radius supported

USB Application Server
- 3G/4G LTE USB modem
- Storage/NAS: FTP server, samba server, and DLNA media server
- Print server

Management
- Easy Sign-On (EZSO)
- Web-based GUI for remote and local management (IPv4/IPv6)
- Firmware upgrade and configuration data upload and download via web-based GUI
- Embedded Telnet server for remote and local management
- SNMP v1, v2, MIB-I and MIB-II support
- Supports DHCP server/client/relay
- TR-069*1 supports remote management
- Available syslog
- Mail alert for WAN IP changed
- Wake On LAN
- Auto failover and fallback
- Push service

Hardware Specifications
Physical Interface
- WLAN: 2 fixed antennas
- DSL: ADSL port
- Telephone: 1 FXO port (For PSTN fixed-line support) 2 FXS ports
- USB 2.0 supports storage service, print server, and 3G/4G LTE USB modem
- Ethernet: 4-port 10/100/1000M auto-crossover (MDI/MDI-X) switch
- EWAN: Ethernet port #4 can be configured as a WAN interface for broadband connectivity
- Factory default reset button
- WPS push button
- Power jack
- Power switch

Physical Specifications
- Dimensions: 9.04" x 6.10" x 1.69" (229.5 mm x 155 mm x 43 mm)

Power Requirements
- Input: 15V DC, 1.6A

Operating Environment
- Operating temperature: 0˚C ~ 40˚C
- Storage temperature: -20˚C ~ 70˚C
- Humidity: 20% ~ 95% non-condensing

Models & Standards Supported
- BiPAC 7800VDPXA: Supports Annex A and Annex M (Annex A and Annex M: ADSL over POTS)
- BiPAC 7800VDPXU: Supports Annex B and U-R2 (Annex B and U-R2: ADSL over ISDN)

***Notes:**
1. On request for Telco/ISP projects.
2. IPTV application may require subscription to IPTV services from a Telco/ISP.
3. Specifications on this datasheet are subject to change without prior notice.

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